

REMARKS

Claims 1-5, 7 and 9 are pending.

Claims 1-5, 7 and 9 stand rejected under 35 USC §103(a) as being allegedly unpatentable over *Reid* et al. (US 2001/0015321) in view of *Lowenheim* (Text *Electroplating*), *Basol* (6,921,551) and *Mayer* et al. (6,946,065).

Rejection under 35 USC §103(a) – claims 1-5, 7 and 9

Claims 1-5, 7 and 9 stand rejected under 35 USC §103(a) as being allegedly unpatentable over *Reid* et al. (US 2001/0015321) in view of *Lowenheim* (Text *Electroplating*), *Basol* (6,921,551) and *Mayer* et al. (6,946,065). This rejection is respectfully traversed.

Applicant respectfully submits that the proposed combination of *Reid*, *Lowenheim*, *Basol* and *Mayer* does not teach or suggest all of the claim limitations of claims 1-5, 7 and 9. In particular, the combined teachings of *Reid*, *Lowenheim*, *Basol* and *Mayer* do not suggest:

“determining a concentration of a suppressor for a high-acid electroplating solution such that the suppressor concentration is sufficient to substantially reduce a plurality of electroplating defects in a semiconductor wafer while maintaining substantial gap fill in the semiconductor wafer;

only after determining the concentration of the suppressor, determining a concentration of a chloride for the high-acid electroplating solution such that the chloride concentration is sufficient to catalyze the suppressor **to maintain the gap fill in the semiconductor wafer while substantially reducing the plurality of electroplating defects in the semiconductor wafer**;

only after determining the concentration of the suppressor, determining a concentration of a leveler for the high-acid electroplating solution, the concentration of the leveler determined to reduce within die thickness variation to a specified value; and

only after determining the concentration of the chloride and the concentration of the leveler, determining a concentration of an accelerator for the high-acid electroplating solution based upon the chloride concentration and the leveler concentration.” (emphasis added).

As pointed by the last Office Action, *Basol* teaches that chloride interacts with the accelerator and suppressor additives, while *Mayer* teaches that there is evidence for the interaction between the organic additive species. However, Applicants submit that the combined teachings of the cited references do not suggest the method as presently claimed in the particular order.

Applicant therefore submits that the rejection based the *Reid*, *Lowenheim*, *Basol* and *Mayer* reference be withdrawn. Thus, Applicant submits that claims 1-5, 7 and 9 recite novel subject matter which distinguishes over any possible combination of *Reid*, *Lowenheim*, *Basol* and *Mayer*.

Conclusion

For all of the above reasons, applicants submit that the amended claims are now in proper form, and that the amended claims all define patentable subject matter over the cited prior art.

Request for allowance

It is believed that this Amendment places the above-identified patent application into condition for allowance. Early favorable consideration of this Amendment is earnestly solicited.

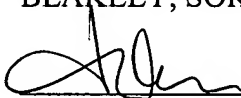
Extension of Time

Pursuant to 37 C.F.R. 1.136(a)(3), applicant(s) hereby request and authorize the U.S. Patent and Trademark Office to (1) treat any concurrent or future reply that requires a petition for extension of time as incorporating a petition for extension of time for the appropriate length of time and (2) charge all required fees, including extension of time fees and fees under 37 C.F.R. 1.16 and 1.17, to Deposit Account No. 02-2666.

Respectfully submitted,

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